ABSTRACT OF THE DISCLOSURE

A white light emitting OLED apparatus includes a microcavity OLED device and a light-integrating element, wherein the microcavity OLED device has a white light emitting organic EL element and the microcavity OLED device is configured to have angular-dependent narrow-band emission, and the light-integrating element integrates the angular-dependent narrow-band emission from different angles from the microcavity OLED device to form white light emission.